Western Arizona/Sonora Border Air Quality Study (WASBAQS)

Similar to the Ambos Nogales and Douglas/Agua Prieta risk assessments, this study consists of four components: measuring meteorological variables and sampling air pollutant concentrations, constructing an inventory of the emissions, simulating the concentrations with an air quality model, and conducting personal exposure and risk assessment analyses. Its area of interest is from Yuma, Arizona to the border, San Luis, Rio Colorado, Sonora, and portions of Baja California del Norte and California.

This project began with the establishment of meteorological sites in the Yuma/San Luis area, with five Arizona sites in summer 2003 and three Mexico sites in June 2004. Measurements consisted of wind speed, wind direction, solar radiation, pressure, temperature, relative humidity, and delta-T. In addition to this meteorological network, two "supersites" with both gaseous and particulate monitoring were established in March 2006: one in northeastern Yuma and the other in northwestern San Luis, Rio Colorado. These sites were run for a full year. In 2006 ADEQ staff and its contractor began building the emissions inventory, due to be finished by July 2007. The WASBAQS also included three special purpose monitoring studies: the pollution from the brick kilns of San Luis, elevated particulates associated with unpaved roads, and the spatial distribution of pollutants in neighborhoods.

As envisioned by ADEQ staff, the WASBAQS, or "Yuma/San Luis border study,"then, would incorporate the elements of the Nogales and Douglas/Aqua Prieta studies, but will expand to issues of cross-border transport, brick kilns, and agricultural emissions.